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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,752	03/23/2001	Heinrich Koehne	P66334US0	3481

136 7590 06/21/2004  
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EXAMINER

TOOMER, CEPHIA D

ART UNIT PAPER NUMBER

1714

DATE MAILED: 06/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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EXAMINER
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ART UNIT	PAPER
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061604

DATE MAILED:

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner for Patents**

Please find attached an examiner's amendment wherein a brief description of the drawings was inserted into the specification.

Cephia D. Toomer  
Primary Examiner  
Art Unit: 1714

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. The application has been amended as follows: at page 2, following line 8 insert the following:

----- BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 shows ignition temperature as a function of carbon chain length (Zebetakis et al, 1954);

FIG. 2 shows a schematic course of temperature in a free-radical chain explosion (Warnatz et al., 1993);

FIG. 3 shows zones of the reaction for the atomization of fuel into a hot air stream;

FIG. 4 shows the temperature course of a cool flame along the path of flow as a function of operation temperature;

FIG. 5 shows zones for starting conditions of the cool flame as a function of air ratio;

FIG. 6 shows the representation of ignition delay period of extra-light fuel oil as a function of the air temperature and dwelling time;

FIG. 7 shows the initial and final temperature of the cool flame for different fuels;

FIG. 8 shows a device which is suitable for performing the process according to the invention;

FIGS. 9a-9c show three established methods for the re-circulation of reaction products;

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FIG. 10 provides an example of the introduction of heat into the cool flame generator;

FIG. 11 shows the process sequence;

Fig. 12 shows another possibility of heat introduction;

FIG. 13 represents an example of the conversion of liquid fuels to a fuel gas suitable for fuel cells;

FIG. 14 represents a two-step fuel supply for the cool flame generator;

FIG. 15 shows the introduction of water or water vapor into the reaction zone of the cool flame;

FIG. 16 shows the cool flame generator in combination with a combustion engine;

FIG. 17 shows the combustion engine process;

FIG. 18 shows a constructive embodiment of the process according to the invention in an oil burner for firing plants with a thermal power of greater than 1 kW;

FIG. 19 shows a process for the utilization and separation of matter;

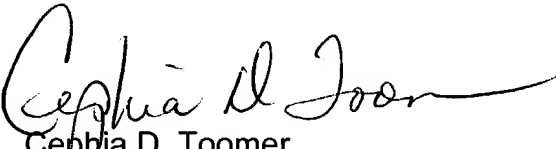
FIG. 20 shows another example of a combustion process with fuel gradation for the reduction of nitrogen oxide levels. ----

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Cephia D. Toomer  
Primary Examiner  
Art Unit 1714

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